

MAPPING OF MANAGEMENT STRATEGIC IN IMPROVING HERBAL MEDICINE INDUSTRY COMPETITIVENESS

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ABSTRACT

Referring to the potential of natural bioresources, Indonesia has prospects in development of herbal medicine products for benefit of health, industry and tourism targeting domestic and international markets. This condition is a strategic capital in free trade era. In order to take advantage of this opportunity and momentum, it is vital prepare a management strategic in herbal medicine industry appropriately. The purpose of this study is identify all potential resources in herbal medicine, monitor technology trends, monitoring surveillance, monitor research produced and performed by a competitor as a basis for formulating management strategic.

Management strategic in Improving Herbal Medicine Competitiveness through 3 main steps. The first, formulating Strategy such as identification all potential resources in herbal medicine, factual condition of herbal medicine (Strenght, Weakness, Opportunity and Threat/S-W-O-T)) by literature study (books, journals, patent documents) and field observation then were be analyzed to get extracted data. The second, implementation strategy by making map and matrix with combination SO, WO, ST, WT. The third, doing evaluation of each step that have be done. Evaluation as a control to make sure that each process done well and accurately.

The results of this study is mapping management strategic in improving herbal medicine in order to competitiveness of these product is better. From methodology, the strategy divided be three steps are formulating, implementation and evaluating strategy. Formulating strategy resulted identification factual condition of herbal medicine in Indoensia; collect and analysis data production herbal medicine in Indonesia; collect data and analysis export and import of herbal medicine in the world, etc. All data extracted and were be analyzed by SWOT Analysis. This is a main data as used to determine strategy of implementation or action how to improve quality and quantity herbal medicine and also its competitiveness. Based on identification, herbal medicine condition has strenght like this : Indonesian has many spesies of herbs as used raw material and change of paradigm that treatment using herbal medicine is better than sintetic medicine because herbal medicine is easier absorbed by digest system and be kind for kidney. The Weakness of herbal medicine in Indonesia are herbal medicines as a national heritage need to be developed and preserved with a primary focus on quality and safety aspects. The efficacy of herbal medicine as an herbal remedy for this is based on empirical experience that has taken place within a period of time and generations. Application of technology in herbal medicine processing of raw materials some do not meet the standards that are determined so that the quality of herbal medicines are also less able to compete with herbal medicine from China. The opportunity are Indonesia and also other country is big market because they start to prefer herbal medicine product. Paradigm of modern human life today wants to use natural results directly included in the world of medicine (back to nature). This makes prospecting and related research for medicinal plants is growing rapidly in many parts of the world. Some products from medicinal plants has become one complementary in terms of substitution of drug use so that it becomes a lifestyle most of people. The Threat of herbal medicine development are mastering of technology (processing and quality product) and high investment in research and development from identification material, processing until application into animal and human surely. The next step, implementation strategy are combine and making matrix to utilization all potential from identification and SWOT analysis; try to get solution from all weakness and threat. From its combination and matrix will get mapping of action

that expected accurately. Final step, doing evaluation to controll each action and making programs more focusly. This management strategic of Indonesian herbal medicine industry expected able to improve competitiveness in local and global level.

KEYWORDS: *Management Strategic, Herbal Medicine Industry & Competitiveness*

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INTRODUCTION

Background

There are some factors that herbal medicine has a great opportunity to be developed continually in Indonesia such as it is supported by a large biodiversity potential, changing of paradigm that issue treatment by herbal medicine or back to nature is better than chemical medicine and population of this country is very big and have strong traditional knowledge in herbal medicine (Ferianto et.al., 2016).

Referring to the potential of that, Indonesia has prospects in development of herbal medicines for benefit of health, industry and tourism products targeting domestic and international markets. Herbal medicine industry has entered into a prospective 10 products need to be developed because it has great potential and promise in both local and global markets (Ferianto et.al., 2016).

Indonesian herbal medicine can basically be grouped into three categories: Herbs, Standardized Herbal Medicine and phytopharmaca. Herbal medicines as a national heritage need to be developed and preserved with a primary focus on quality and safety aspects. The efficacy of herbal medicine as an herbal remedy for this is based on empirical experience that has taken place within a period of time and generations (Biofarmaka IPB, 2013).

But, application of technology in herbal medicine processing of raw materials some do not meet the standards that are determined so that the quality of herbal medicines are also less able to compete with herbal medicine from China. Padahal, The opportunity of Indonesia and also other country is big market because they start to prefer herbal medicine product. By supported availablity of raw material and large users Indonesia should have key contribution in herbal medicine industry. Therefore mastering a technology and standardization awareness must be implemented.

The above conditions encourages writers to conduct an environmental analysis of the strengths and weaknesses, and can take advantage of opportunities and be aware of the threat. This analysis needs to be done because of the environmental conditions are constantly changing, especially the external environment. Environmental analysis used is SWOT analysis because this method is a simple method, can formulate strategies, and most often used to conduct environmental analysis. From the results of this study are expected to be compiled by an appropriate strategy and in accordance with the conditions of the herbal medicine industry in an effort to improve the competitiveness of herbal medicine in Indonesia (David, 1993).

Extracted from David (1993) and Jones (1990), SWOT analysis consider two approach factors are internal factor and external factor. The first two letters in the acronym, S (strengths) and W (weaknesses), refer to internal factors, which means the resources and experience readily available to you. Examples of areas typically considered include:

- Financial resources, such as funding, sources of income and investment opportunities
- Physical resources, such as your company's location, facilities and equipment
- Human resources, such as employees, volunteers and target audiences
- Access to natural resources, trademarks, patents and copyrights
- Current processes, such as employee programs, department hierarchies and software systems.

External forces influence and affect every company, organization and individual. Whether or not these factors are connected directly or indirectly to an opportunity or threat, it is important to take note of and document each one. External factors typically reference things you or your company do not control, such as:

- Market trends, like new products and technology or shifts in audience needs
- Economic trends, such as local, national and international financial trends
- Funding, such as donations, legislature and other sources
- Demographics, such as a target audience's age, race, gender and culture
- Relationships with suppliers and partners
- Political, environmental and economic regulations.

METHODS

Management strategic in Improving Herbal Medicine Competitiveness through 3 main steps. The first, formulating Strategy such as identification all potential resources in herbal medicine, factual condition of herbal medicine (Strength, Weakness, Opportunity and Threat/S-W-O-T)) by literature study (books, journals, patent documents) and field observation then were be analyzed to get extracted data. The second, implementation strategy by making map and matrix with combination SO, WO, ST, WT. The third, doing evaluation of each step that have be done. Evaluation as a control to make sure that each process done well and accurately (extracted from David, 1993 and Jones, 1990).

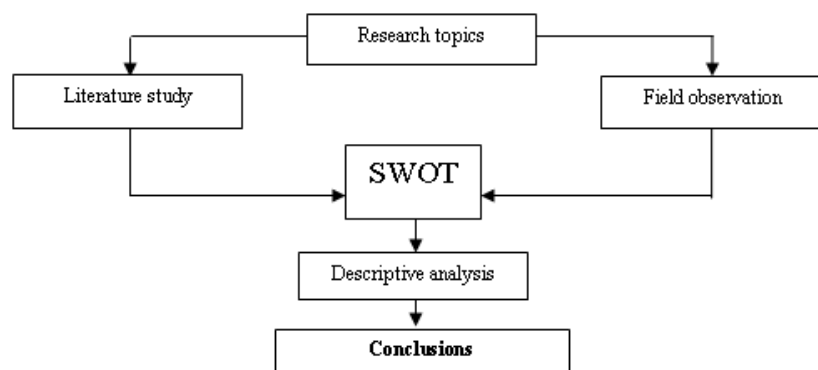


Figure 1: Research Step (Creswell, 2010)

RESULTS

According to first step of formulating Strategy such as identification all potential resources in herbal medicine, factual condition of herbal medicine (Strenght, Weakness, Opportunity and Threat/S-W-O-T)) by literature study (books, journals, patent documents) and field observation resulted extracted data like described below.

Figure 2 and Table 1 shows trend of an increase in export value of Indonesian herbal medicine from 2009 to 2013. Growth of these exports value reached about 6.49% per year. The main products of herbal medicine exports in January-June 2014 Ginger (HS 091010) with an export value of US \$ 25.8 million, with a market share of exports amounted to 88.58% of total exports of Indonesian herbal medicine. Other spices (HS 091099) with an export value of US \$ 1,844 million (6.33%), Curcuma (HS 091030) with an export value of US \$ 699 thousand (2.4%). The largest market share of Indonesian herbal medicine export destination is Bangladesh, Pakistan, Malaysia, Vietnam and Japan (Ferianto et al., 2016).

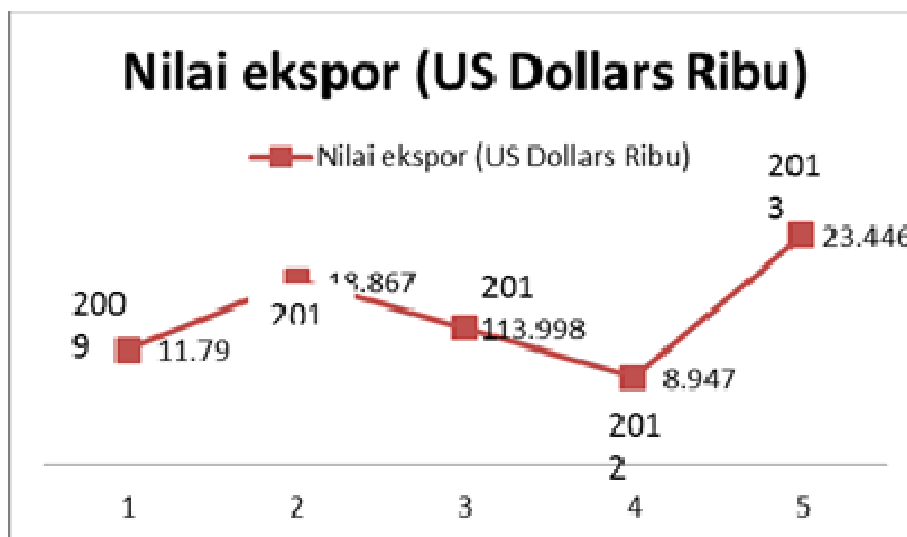


Figure 2: Export Value of Indonesian Herbal Medicine 2009-2013
(Source: BPS, 2014)

Table 1: Main Product Export of Indonesian Herbal Medicine

No	HS	Commodity	Year			% Trend 2009-2013	Jan-Jun 2014			% Change 2013/2014	
			Tons	US \$ 000	% Share		Tons	US \$ 000	% Share	Quantity	Value
1	091010	Ginger	22,472	14,909	63.59	22.44	33,922	25,809	88.58	2,17681	1,616.85
2	091099	Spices, Nesoi	1,188	4,343	18.52	-12.02	563	1,844	6.33	50.95	43.54
3	091030	Turmeric/Curcuma	1,947	2,101	8.96	-16.17	444	699	2.40	18.11	21.36
4	091091	Mixture of two or more spices provided for separately in different heading of this chapter	729	1,603	6.84	67.15	220	620	2.13	11.70	2.63
5	091020	Saffron	794	490	2.09	47.34	274	166	0.57	-9.87	-13.40
Total			27,129	23,446	100.00	6.49	35,422	29,137	100.00	1,193.15	600.54

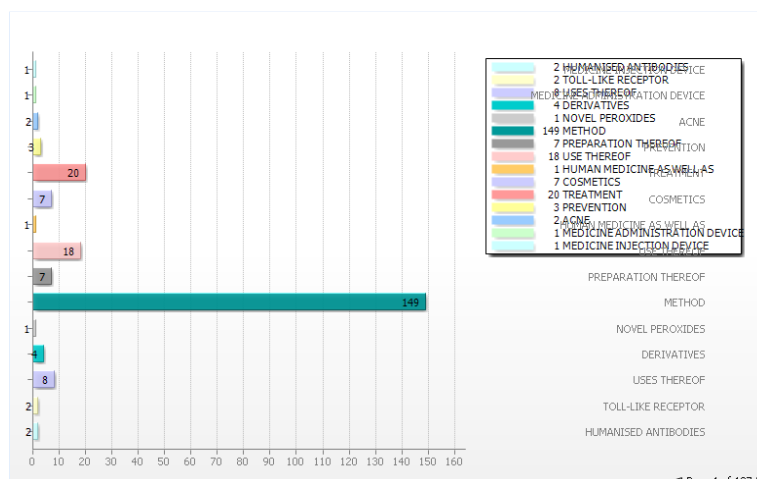


Figure 3: Field Of Technology in Traditional Herbal Medicine
(Source: Matheo Patent XE)

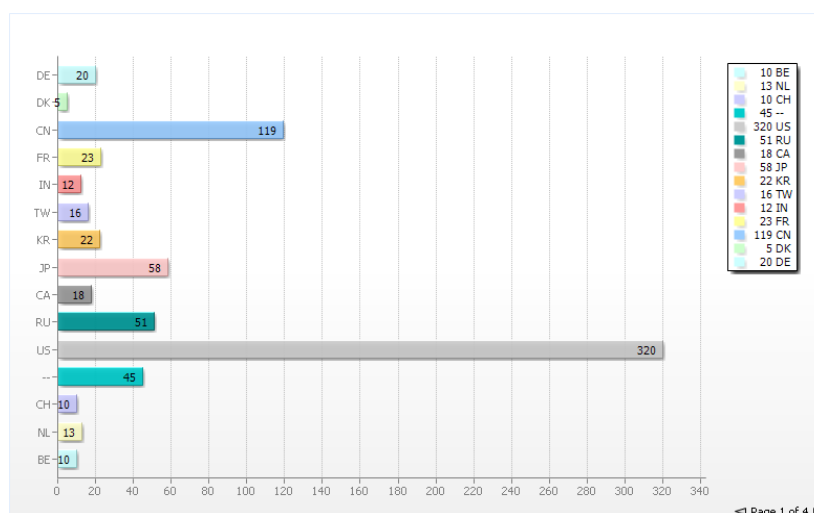


Figure 4: Country of Applicant in the Field of Traditional Herbal Medicine
(Source: Matheo Patent XE).

Searching by Matheo Patent XE used keyword “traditional medicine” resulted data showed on Figure 3 that field of technology on traditional medicine dominated by method and utilization (use). We can find 2000 Patents on traditional medicine that registered in the world so with many patent that has been registered, we can find benefit on analysis prospecting uses in the future. Capturing well of this technology through reverse engineering will give chance for us how to adopt this technology even make improvement from previous technology. Patent document contains rich information about knowledge and technology that can be freely accessed (Ferianto et al., 2016).

According to Figure 4, Chinese is the largest producer of herbal medicine country in Asian even exporting the largest exporting herbal medicines country in the world. The United States is the largest patent applications country in the world in the field of traditional herbal medicine. Both of them continue to develop processing technology, tools as well as the composition of herbal medicinal products. Ironically, some of the raw materials for the manufacture of herbal medicine source from Indonesia. Application technology in herbal medicine processing of raw materials some do not meet the standards that are determined so that the quality of herbal medicines are also less able to compete with herbal medicine

from China (Ferianto et al., 2016). Then, The second step of implementation strategy by making map and matrix with combination SO, WO, ST, WT like described below.

Table 2: SWOT Matrix

<div style="text-align: center;">Internal Factor</div> <div style="text-align: center;">External Factor</div>	STRENGTHS 1. Rich biodiversity 2. Strong Traditional knowledge 3. High population—high demand 4. Competitive price	WEAKNESSES 1. Technology mastering in process is still less 2. Standardization application is still less 3. High cost in Research and development 4. Improvement in quantity and quality still not yet intensively
	Opportunity-Strength (OS) Strategies Use the strengths to take advantage of opportunities 1. Improved quality and quantity product 2. Improved exploration raw material Improved promotion to add market	Opportunity-Weakness (OW) Strategies Overcome weaknesses by taking advantage of opportunities 1. Promotion strategy wider 2. Technology transfer management
THREATS 1. Chemical medicine cheaper 2. Regulation complex to get certification from BPOM 3. Illegal product from foreign country	Threat-Strength (TS) Strategies Use strengths to avoid threats 1. Patent protection of herbal medicine 2. Stronger branding	Threat-Weakness (TW) Strategies Minimize weaknesses and avoid threats 1. Technology adoption from public domain source 2. Utilize national standard official to help standardization process

This implementation strategy are combine and making matrix to utilization all potential from identification and SWOT analysis; try to get solution from all weakness and threat. From its combination and matrix will get mapping of action that expected accurately. The end of this step is doing evaluation as a control to make sure that each process done well and accurately. This management strategic of Indonesian herbal medicine industry expected able to improve competitiveness in local and global level. From all steps, can be made summary or map of these pathway like this.

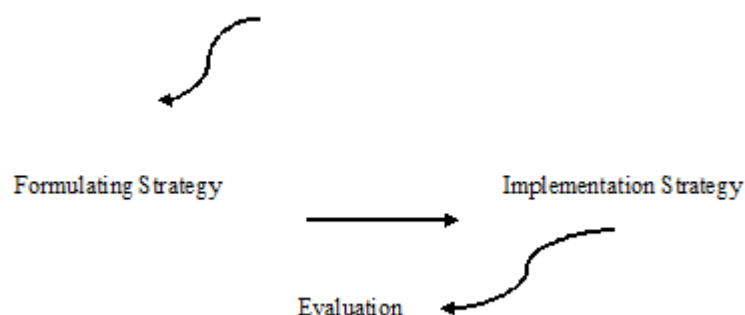


Figure 5: Map of Management Strategic in Improving Herbal Medicine Industry Competitiveness

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CONCLUTIONS

The management strategic of Indonesian herbal medicine industry that been implemented by formulating, implementation and evaluating strategy systematically expected able to be one of solution in improvement herbal medicine industry competitiveness in local and global level.

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